# PRINCETON



#### A Brief Account

of

# Princeton University

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COMPILED BY

prof. A. F. West

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#### Ibistorical.

Like all American Colleges and Universities founded before the Revolution, and the majority of them since that time, Princeton University was founded by men of Christian faith in order to promote a culture of unmistakably Christian character. Therefore, while at no time and in no sense an ecclesiastical University, Princeton is and has been committed to Christian ideals. To these she has endeavored to be faithful in the past and is unequivocally pledged to them for the future.

The beginnings of the movement, which culminated in founding Princeton College, date from the early years of the eighteenth century. At that time the population of the Middle Colonies, that is to say, New York, New Jersey and Pennsylvania, was already considerable and was receiving constant accessions by immigration from the old world. The various elements which composed this population were marked by strong religious convictions. The vigorous Scotch and Scotch-Irish Presbyterians, peaceable Quakers, members of the Church of England, grave Dutch Calvinists, French Huguenots and a sprinkling of New England Puritans made up practically the whole population, and all of these clements were directly or indirectly interested and represented in the establishing of Princeton. Scarcely had the earliest settlers cleared the wilderness of Eastern Pennsylvania and the "Jerseys," and dotted the clearings with their log cabins and churches, when

they began to think of establishing schools. So far as can be ascertained, none of these early schools has perpetuated itself to the present time, and the memory of most of them survives only in some old church record or local tradition. But one of them had no small fame. It was the so-called "Log College," which, though not a lineal ancestor, was yet the significant precursor of Princeton. This humble but famous academy was opened in the year 1726 by the Rev. William Tennent. He had been a resident, and was probably a native of the north of Ireland, where he was ordained a clergyman of the Established Church. Some time after his immigration to this country, he became a minister of the Presbyterian Church. He was a man of liberal education, and reputed to have special proficiency and eloquence in the use of the Latin tongue. He was educated probably at Trinity College, Dublin. In 1726 he was settled as pastor of the little Presbyterian Church of Neshaminy, on the Neshaminy River, a small and beautiful stream flowing into the Delaware some twenty miles above Philadelphia. In the very year of his coming to Neshaminy, where he was to spend the rest of his life, he built with his own hands, probably with the help of his sons, a small house made of logs hewn from the forest which fringed the stream. This house was soon called in contempt the "Log College." Thus once again in history did Elisha and the sons of the prophets "go unto Jordan," and "taking thence every man a beam," "make for them a place there where they might dwell." So, indeed, it seemed to Rev. George Whitefield, the English evangelist, who visited Tennent in 1739. "The place," he says, "wherein the young men study now is in contempt called the College. It is a log house about twenty foot long and near as many broad; and to me it seemed to resemble the school of the old Prophets, for their habitations were mean; and that they sought not great things for themselves is plain from those passages of Scripture, wherein we are told that each of them took them a beam to build them a house. \* \* All that we can say of most of our Universities is they are glorious without. From this despised place seven or eight worthy ministers of Jesus have lately been sent forth. More are almost ready to be sent, and the foundation is now laying for the instruction of many others."

The Log College existed for twenty years. From the declining health of Mr. Tennent, and other causes, its future usefulness was threatened, and with the granting of the first charter to the College of New Jersey in 1746, the Log College may be said to have passed out of exist-"Just as the Log College expired," says Dr. Archibald Alexander in his careful historical study, "the College of New Jersey sprang into existence. The friends and patrons of the former became the principal supporters and trustees of the latter. Thus it may, with truth, be said that the Log College was the germ from which proceeded the flourishing College of New Jersev.(1)" Not, of course, in the sense that Princeton was directly founded upon the Log College, but in the sense that the whole influence of the alumni of the Log College passed into Princeton and became a potent influence in shaping its early policy.

The first charter of the College of New Jersey was granted October 22d, 1746, by the Hon. John Hamilton,

<sup>(1)</sup> Biographical Sketches of the Founder and Principal Alumni of the Log College, by A. Alexander, D.D., Princeton, N. J., 1845.

President of His Majesty's Council. The purpose of the charter was to "erect a College in New Jersey for the instruction of youth in the learned languages and in the liberal arts and sciences." A body of trustees was created with full power to carry out the intent of the charter, and "rendred capable of perpetual succession to continue forever." A special provision was included to the effect "that no person be debarred of any of the privileges of the said College on account of any speculative principles of religion; but those of every religious profession have equal privilege and advantage of education in the said College." The second charter, which in its amended form is still the fundamental law of Princeton, was granted September 14th, 1748, by Governor Belcher, of the Province of New Jersey. After the achievement of American independence, this charter was confirmed and renewed by the Legislature of New Jersey. Its provisions are more claborate than those of the first charter, but its spirit is the same. It is expressly provided that "those of every religious denomination may have free and equal liberty and advantage of education in the said College, any different sentiments in religion notwithstanding." From that time to this, the College, while positively Christian in its culture, has likewise been unsectarian and tolerant. The College was opened in May, 1747, at Elizabethtown, now Elizabeth. At the close of the same year it was removed to Newark and shortly afterward to Princeton, probably in 1755, for at that time Nassau Hall, the most illustrious of all American academic buildings, was erected.

The history of Princeton is embraced under twelve presidencies. The twelve Presidents in their order are as follows:

Jonathan Dickinson	1747.
Aaron Burr	1748-1757.
Jonathan Edwards	1758.
Samuel Davies	17591761.
Samuel Finley	1761–1766.
John Witherspoon	1768–1794.
Samuel Stanhope Smith	1795–1812.
Ashbel Green	1812–1822.
James Carnahan	1823–1854.
John Maelean	1854–1868.
James McCosh	1868–1888.
Francis Landey Patton	1888

The administrations of the first five Presidents, Dickinson, Burr, Edwards, Davies and Finley, accordingly belong entirely to the colonial period. The sixth president, Witherspoon, ends the colonial period, and carries Princeton through the trying times of the Revolution and the founding of our national life. The next four presidents, Smith, Green, Carnahan and Maclean, carry the history of the College down through what may be called the first great period of our national history, that is, to the close of the Civil War. The period since the Civil War, or contemporary Princeton, is represented by the administrations of Presidents McCosh and Patton. It will thus be seen that Princeton is identified with the three periods of our history—the colonial, the revolutionary and the national.

The double design of maintaining learning and religion was, of course, the conscious intention of the founders of the institution, and remains its fixed policy. But to these two a third important element is to be added, if one would estimate the full influence of Princeton. This is its contribution to patriotism, and

these three, religion, learning and patriotism, have gone hand in hand from the beginning. In the history of the Christian Church in America such names are associated with Princeton either as instructors alumni, as Jonathan Edwards, the Hodges, the Alexanders, the Greens, and Bishops Johns and McIlvaine. In public life one President, two Vice-Presidents and one Chief-Justice of the United States belong to her alumni, and the names of Madison, Witherspoon, Stockton, Lee, Bayard, Freneau, Brevard, Ellsworth and Livingston suggest the influence of Princeton in the struggle for American independence and the beginnings of our national life. In the world of learning it is probable that Princeton's contribution to science is not her least noteworthy performance. Maclean, her first professor of chemistry, was the first professor of chemistry in any American college, and the instructor of Silliman. Other professors of science are Joseph Henry, the discoverer in the field of electro-magnetism; Torrey, the botanist; Arnold Guyot, the physical geographer, and Young, the astronomer. In philosophy, too, from the time of Jonathan Edwards to the administrations of Presidents McCosh and Patton, there has been continued activity-In literature and the arts, in the professions of law and medicine, in journalism and teaching, and generally in the various lines of cultured activity, Princeton has been honorably represented throughout her history. From small beginnings she has grown to be a virtual university now enrolling about eleven hundred students. Within the last six years the student attendance has practically doubled, and its growth for the future promises to be most vigorous.

But as the purpose of this sketch is not to record the history of Princeton, which has been thoroughly done by President John Maelean, this bare enumeration of some salient historical points must suffice, and the rest of the pamphlet will be mainly devoted to describing Princeton as it is.

### The Campus.

The village of Prineeton lies half-way between New York and Philadelphia, three miles westward from the main line of the Pennsylvania Railroad. It is situated on a pleasantly wooded ridge. Nassau Street, the main highway of the village, runs east and west, and was formerly the old post-road between New York and Philadelphia. To the south of this street lies the Campus, stretching southward towards Stony Brook and enclosing about two hundred and twenty-five aeres. The various buildings are elustered in the more elevated part of the grounds towards the village. The oldest group eonsists of Nassau Hall, the Dean's (formerly the President's) House, the College Offices, East College and West College. Nassau Hall is of eourse the oldest and most interesting. It was erected in 1755 and was then thought to be remarkable on account of its "vast size." Originally a dormitory for the housing of students, of late years it has been converted almost entirely into museums. In the Revolution it suffered much and Washington contributed towards its restoration after the Battle of Princeton in 1777. His portrait, painted shortly thereafter, was hung in a place of honor on one of its walls. This is the portrait now on exhibition at the World's Columbian Exposition in Chicago. Here the Continental Congress met when driven from Philadelphia in the darkest days of the Revolution, and

here subsequently both Washington and Lafayette attended Commencement. In the early years of this eentury it was injured by fire, but its construction was so solid as to save it from being burned down and even from disfigurement. In the great student revolution, one of the towers is said to have been injured by a giant fire-eracker, the size of a barrel, exploded underneath it. At the opening of the War of the Rebellion, the weather-vane on its belfry veered to the north and remained fixed in that direction for years. So, at least. student tradition says. At the present time its front and sides are eovered with ivies, the gifts of graduating elasses. Its whole aspect is venerable and simple. On its steps in the June evenings, the aneient eustom of Senior Singing is still kept up, and from its belfry at nine o'eloek at night rings the old eurfew, bidding every student put out his light and go to bed.

The next oldest building is the Dean's house, formerly the President's house. It was erected almost as soon, if not as soon, as Nassau Hall, and served as the President's residence well into Dr. McCosh's administration. It is a colonial house, standing in a pleasant Dean's Yard. In front of it are two old sycamores, planted in 1765 by order of the Trustees, and commemorating, according to college tradition, the colonial resistance to the Stamp Act.

Between the Dean's House and Nassau Hall stands the College Offices, the survivor of twin buildings erected in 1803. It is divided into the Faculty Room, the Registrar's Office and the Treasurer's Office, and serves for the general administration of the College. Back of Nassau Hall on the east and west sides stand East and West Colleges, built in 1833 and 1836 respectively. Completing the quadrangle formed on the north side by Nassau

Hall and on two other sides by East and West Colleges, stand Whig and Clio Halls, the buildings of the two literary societies of those names. These organizations began early in the history of Princeton. They are conducted entirely by undergraduates, but include in their membership graduates and professors. Their object is the development of skill in writing, speaking and debating, as well as in general parliamentary practice. It is an open secret that their rules are those of the American Congress. As early as the end of the eighteenth century both Madison's Virginia plan and Patterson's New Jersey plan, the two rival plans for the formation of a Federal Government, were made by graduates of these societies. From that time onward their influence in qualifying for public life has been marked and valuable. They are traditional rivals for the honors in oratory, debating and writing, and grant diplomas to their graduates. The invasion of secret societics, which destroyed so many of the old American College literary societies elsewhere, has left Whig and Clio Halls uninjured, and they are interesting as being the most conspicuous survivors, if not the only survivors, of student literary societies prior to the Revolution. The old halls, now demolished, were crected in 1838, and were precisely similar in external appearance, both being modeled after an Ionic temple on the island of Teos. Two new halls stand on the old sites. They are now nearly completed and will be ready for use in the fall of this year. They also are a pair of Ionic temples of marble, but more commodious than the old buildings and superior in their internal appoint-The Old Chapel, familiarly known to former alumni as "a small cruciform structure of Byzantian character," stands close to Nassau Hall on the east side

and it is now used as a lecture-room and for exercises in oratory. Such are the oldest buildings, excepting the two new halls, which, however, were erected on old sites.

Of the more recent buildings, the following are dormitories:

Reunion Hall, creeted in 1870; University Hall, in 1876; Witherspoon Hall, in 1877; Edwards Hall, in 1880; Dod Hall, in 1890, and David Brown Hall, in 1891.

The other buildings are "Prospect," the President's residence, erected in 1849 and purchased for the College in 1879; the Halsted Observatory, built in 1869; the Gymnasium, built in 1869; Dickinson Hall, the general lecture hall, in 1870; the John C. Green Library in 1873; the School of Science in 1873; the Observatory of Instruction in 1878; Murray Hall in 1879; the Marquand Chapel in 1881; the Biological Laboratory in 1887; the Museum of Historic Art in 1888; the Magnetic Observatory in 1889; the Dynamo Building in 1889; the Chemical Laboratory in 1891; the Isabella McCosh Infirmary in 1892; the Brokaw Memorial in 1892, and Alexander Hall, now building. Separate descriptions of some of these will be given.

The Halsted Observatory is the gift of the late General Halsted, of Newark, N. J. The building is of stone, with an iron dome thirty-nine feet in diameter. The power for moving it and its sliding shutter is furnished by an electric motor and storage battery. The principal instrument is the great equatorial, of twenty-three inches aperture and thirty feet focal length, made by the Clarks. It is provided with all the usual accessories, the outfit being rendered especially complete by the recent gift of a spectroscope of the highest power, fitted for both visual and photographic work. The building

also contains a clock and a chronograph, and is in electrical connection with the Observatory of Instruction.

The Gymnasium stands next to the Halsted Observatory. It was built in 1869. Besides the general gymnasium in the main hall up stairs, it contains bowling alleys, dressing rooms, hot and cold shower and plunge baths, and a visitors' gallery. Every entering class is required to devote three hours a week in the first term to physical exercise under the supervision of the superintendent of this Gymnasium, and especially in the winter weather general exercises for physical drill are held at noon and five o'clock in the afternoon four days in the week. These exercises are graduated according to the strength and growth of those who take them, and are intended to maintain and improve the general health rather than to make gymnasts. Those who desire training on any special apparatus may secure it under the supervision of the superintendent. During the latter part of the year advanced exercises are open for those who desire them, and at Commencement a gymnastic exhibition is given. During the year there are four athletic meetings for prizes.

Dickinson Hall was built in 1870, a year after the Gymnasium. It stands a little to the east of the Old Chapel, and is devoted exclusively to recitation and lecture rooms. Although not an old building, some of its rooms are already associated with strong traditions of learning. Of these rooms, the Philosophical Lecture Room, at the eastern end of the second floor, was used until lately for lectures in philosophy, the lecturers being such men as Drs. McCosh and Patton, Atwater, Shields and Ormond. But the College has outgrown Dickinson Hall in recent years, and class exercises now not only fill every room in this building, but overflow

into the School of Science, the Chemical Laboratory, the Old Chapel and Nassau Hall. A new lecture hall capable of accommodating the class exercises of two thousand men should be erected at once.

Close by Dickinson Hall stands the Chancellor Green Library, built in 1873. The College Library was probably founded with the College, but refounded by a gift of books from Governor Belcher in 1755. In 1760 it had grown to the respectable proportions of thirteen hundred volumes. During the Revolutionary War it was plundered, but was afterwards restored and enlarged, partly out of the one grant from the Legislature which Princeton ever received. In 1802, when destroyed by fire, it numbered three thousand volumes. A few of the books, generally much the worse for wear, escaped destruction. An appeal for its restoration met with a prompt response, and in 1804 it numbered four thousand volumes. In 1831 the number of books had risen to seven thousand; in 1854 to about nine thousand; in 1889 to forty-four thousand, and to-day it numbers ninety thousand. Both the Library building and its endowment are due to the liberality of Mr. John C. Green and his brother, Chancellor Green, and the continued interest and personal attention of Mr. Charles E. Green. To them is due the well-planned Library, with its central octagon and two wings, and the present endowment for the Library's increase and maintenance. Besides these chief benefactors, the list of other contributors of books and money is a long one. It includes, in the earliest periods, such men as Governor Belcher, President Madison, nearly all the Presidents of the College, Dugald Stewart, Archibald Alison and Thomas Erskine. In later times, Mr. George W. Childs has been a conspicuous giver, and Mr. John S. Pierson,

of New York, has given the large collection of books chiefly relating to the Civil War. Recently Mr. M. Taylor Pyne, of New York, has made valuable gifts, and last of all, and among the most significant of recent helps, is the memorial gift now coming from the Class of 1883 of books to found a library of Jurisprudence and Political Science, and a sum with which to endow the same. The libraries in connection with Whig and Clio Halls amount to twenty thousand eight hundred volumes, and the library of the Theological Seminary has fifty-four thousand volumes. The total thus accessible in the Princeton libraries to the College students is approximately one hundred and sixty-five thousand volumes. Liberal as this equipment is, it needs large additions. A University Library with half a million books and a subscription to all important learned periodicals, with endowment sufficient to provide for its gradual increase in the future, would be a benefaction of the highest usefulness at the present time.

The John C. Green School of Science stands to the northeast of Dickinson Hall at the northeastern end of the Campus. It was erected in 1873. It consists of an imposing quadrangle surmounted at one corner with a tall clock tower. It is at present devoted partly to class rooms and partly to museums and laboratories. In this building are the lecture rooms of Professors Young, Macloskie, McMillan, Magie and others who give instruction in Astronomy, Biology, Civil Engineering and Physics. On the third floor is the extensive museum of Natural History; on the first floor the Physical Laboratory. In another part of the building are the Herbarium, and the rooms devoted to the departments of Civil Engineering and Graphics.

The next building erected after the School of Science was the Observatory of Instruction on Prospect avenue, a short distance east from the Campus, connected with the residence of Professor Young. This establishment is devoted entirely to the use of students, and is fully equipped for its purpose. It possesses an equatorial telescope of nine and one-half inches aperture, with a full complement of spectroscopic and other accessories. It has also a nine-inch reflector; a meridian circle with telescope four inches in diameter; transit instruments and prime-vertical instruments, a chronograph, standard clocks and chronometers, together with a number of sextants, and all the subsidiary apparatus required for carrying out the work involved in the courses in Practical Astronomy.

In 1879 Murray Hall was erected; the gift of Hamilton Murray of the class of 1872, who was drowned at sea on the ill-fated Ville de Hayre. It contains a hall for religious meetings and a reading room supplied with religious books and periodicals. It is the home of the Philadelphian Society, the oldest College Christian Association of undergraduates in the country. The Society was founded in 1825. Devotional meetings, conducted by members of the Faculty, are held on Thursday evenings and business meetings on Saturday evenings, while the various class prayer meetings are conducted partly in this building and partly in others on Sunday evenings. In this connection it may be well to mention the St. Paul's Society, a similar organization founded in 1875, intended to be helpful to those students who are accustomed to the worship of the Protestant Episcopal Church. It has also weekly meetings and ordinarily a series of sermons is delivered annually in Trinity Church under its auspices. These two taken together centralize and energize the undergraduate religious life of Princeton.

When the Old Chapel was outgrown, the liberality of Mr. Henry G. Marquand of New York gave Princeton, in 1881, the beautiful Marquand Chapel. It is constructed of a rich brown stone and is in the form of a Greek cross. Its interior is attractively decorated and enriched with frescoes and stained glass, the most interesting series of windows being that in commemoration of Frederick Marquand of the class of 1876. Memorial tablets are already beginning to appear on its walls. The first was that of Joseph Henry, carved in low relief on a variegated gray marble and set in the east wall. Near by it is the bronze tablet of Arnold Guyot, the gift of his Princeton pupils, fastened upon a fragment of a Swiss glacial boulder, sent by the authorities of his native city, Neuchatel. Near the pulpit stands the heroic bronze portrait of President McCosh, executed by St. Gaudens and presented by the class of 1879. In this chapel morning prayers are offered every secular day and public worship is held every Sunday morning and afternoon. Undergraduate attendance is required at chapel, both at the morning prayers and at the Sunday services, unless permission be granted for attendance elsewhere. Probably the most impressive sight in Princeton is a full attendance at morning chapel, when the unity of the college is seen as at no other time. But the Marquand Chapel, though generously planned, is now crowded with undergraduates and it is hoped that this superb building may be found capable of extension from a Greck into a Latin cross, and thus be still sufficient for the growing undergraduate body.

In 1887 the Biological Laboratory was erected. This building is situated at the east end of Dickinson Hall and is the first building presented to the College by a class of its alumni, being the gift of the class of 1877 at their decennial reunion. It is designed for advanced courses in comparative anatomy, embryology and physiological psychology. Its basement is designed for aquaria. The first floor comprises two laboratories—the embryological, intended for research, and the bacteriological laboratory for experimental work. On the second floor is the main morphological laboratory, which is equipped for the instruction of undergraduates and has a private room adjoining with a special library of reference books.

In 1888 the construction of the Museum of Historic Art was begun and the central portion of the edifice has been completed. Its basement is now occupied by a selected collection of casts of ancient and medieval sculpture, presented by the class of 1881. This collection was formed to illustrate ancient sculpture as found in Egypt, Babylon and Assyria, Persia, Greece and Rome, and the medieval sculpture of Italy, France and Germany. On the first floor is arranged the Trumbull-Prime collection, comprising some twenty thousand specimens and illustrating very completely the history of pottery and porcelain. Besides this collection there are also reproductions of Greek and Roman coins and gems, a set of bronze medals and casts of ivories from the Roman down to the Gothic period. The upper story at present contains the loan exhibition of engravings, furnished by Mrs. T. Harrison Garrett. The present exhibition is remarkable for early states and choice impressions of well-known masterpieces, selected for the purpose of giving as complete an impression as possible

of the varied range of artistic qualities and technical execution in the various processes and by all schools from the fifteenth century to the present.

In 1889, with the founding of the School of Electrical Engineering, as an offshoot of the School of Science, the Dynamo Building and the Magnetic Observatory were also erected, being placed at a sufficient distance to be safe from magnetic disturbances. dynamo building contains a steam engine for furnishing motive power to the machinery, and a large assortment of dynamos. With these machines is a complete outfit of accessories, a large rheostat of German silver, and a selection of arc and incandescent lights, so arranged that the various systems of distribution may be studied. The dynamo building is connected with the magnetic observatory by heavy copper wires, so that the instruments of the observatory are available for experimental work with the dynamos. The Magnetie Observatory is a brick building without iron in its construction, situated in a position where it is as far as possible from the disturbing influences of large masses of iron. The main laboratory is in the basement. first floor is a reading room and a private laboratory and on the second floor is a large room which is used for special investigations.

In 1890 the growth of the college made the need of larger accommodations for the students more apparent. Through the liberality of Mrs. Brown this demand was met by the erection of Albert B. Dod Hall, named after her brother who had been an eminent mathematician and a professor in the college. This gift was supplemented in the following year by the erection of David Brown Hall, one of the handsomest buildings upon the campus. Its name makes it the memorial of the

husband of Mrs. Brown, and she has shown in this most practical manner her appreciation of the work of the college. The great need of the college to-day is more accommodation for its students.

In 1891 the new Chemical Laboratory was erected by a gift from the residuary legatees of the estate of Mr. Green. It is a fire-proof building standing close to the School of Science and is admirably lighted and ventilated. Its general shape is that of an "L," the main portion of which is one hundred and eight feet long by fiftyeight feet wide, with a wing forty-seven feet long and fortytwo feet wide. It has been planned and equipped after careful study of the best laboratories in America and abroad. The upper floor is entirely devoted to laboratories for undergraduate students, with private rooms for the professor and assistants, a weighing room, reading room, and sulphuretted hydrogen room. student has a separate desk, provided with water, gas, suction for filter pump and sink. The second floor contains two lecture rooms, a room for experimental work in chemical physics, cabinets for specimens, lecture apparatus, a mineral cabinet, a laboratory for advanced students and the professor's private laboratory. The basement contains rooms for experiments in technical and organic chemistry, and for gasometric work, besides an assay laboratory, work-shop, cloak room, janitor's room, store rooms and battery room.

The Isabella McCosh Infirmary, erected in 1892, is now ready for use. The appropriateness of attaching the name of Mrs. McCosh to this building will be recognized by every graduate, and especially by those to whom she so often ministered in their sickness during their student life. The building stands on the slope of ground running southward below Prospect, the Presi-

dent's residence, and looks out over the beautiful plain that lies towards Princeton Junction. It has been carefully planned under competent medical advice and is thought to be complete from a sanitary point of view. It is divided into small wards, and also rooms for separate patients. There are conveniences in the way of both stationary and portable bath tubs, and a large sun parlor for those who are convalescent; a well selected pharmacy, an operating room, two kitchens, and special means of separating any patient suspected of a contagious disease. A competent matron is in charge of the building.

The erection of the Brokaw Memorial is still in progress, having been begun in 1892, by Mr. Brokaw of New York, in commemoration of his son, Frederick Brokaw, who, while a student in Princeton, lost his life in the effort to save a woman from drowning. The Memorial takes the form of a large athletic field for the general use of the whole College, supplemented by an impressive building, which will serve as a gateway. This building is to contain dressing rooms and lockers for the accommodation of several hundred men and is connnected with another building containing a swimming tank, one hundred and twenty by thirty feet. The field to which this building serves as an approach is being terraced in two levels. The upper level is to be reserved for tennis courts and on the lower level there are to be three football or baseball fields laid out. portion of the Campus thus occupied lies to the south of that part of the Campus which is at present occupied by buildings.

The most imposing edifiee now building is Alexander Hall, the gift of Mrs. Charles B. Alexander of New York. It is to serve as a Commencement Hall and for great academic functions generally. Architecturally, the building has comparatively simple structural outlines with very claborate decorations. Inside is the Commencement Hall, a semi-circular room of noble proportions and one which gives promise of exceedingly rich interior effects. All of the material is of the most enduring character and the decoration is no meaningless mass of ornament, but is to be symbolical of the unity of the arts and sciences. It is thought that Alexander Hall will be sufficiently completed for use within another year.

There remain for mention some collections in the various buildings. In Nassau Hall is to be found the E. M. Geological Museum. In the upper or eastern hall is the Palæontological Museum, containing the general collection of the vertebrate and invertebrate fossils of Europe and America, as well as the fine Eocene and Miocene fossils secured in the West by the various Princeton expeditions.

These collections are already noteworthy from a teaching standpoint, and have often been characterized as among the best for the purpose in America.

In another part of the building is the Archæological Museum, of which the ehief feature is the portion dealing with American Archæology and Ethnology. On the upper floor of the west wing of Nassau Hall is the Histological Laboratory. Near by it preparation is being made for a laboratory for Experimental Psychology, while below are the Palæontological Laboratories, and the Geological Library and map room.

Within a quarter of a mile to the eastward of the Campus lie the University Athletic Grounds. They consist of a spacious field with room on its terraced portion for two games simultaneously of baseball or football, and encircled by a cinder track of half a mile in length, laid out upon carefully calculated Facing the field stands a large winter practice house, commonly known as the "Cage." This building has a clear floor space of sixty by one hundred and forty feet and a high trussed roof, thus permitting indoor baseball practice in the winter. In front of the Cage, stands a club-house, containing the necessary dressing rooms, with shower and plunge baths. is also a large grandstand, the gift of Mrs. McCook of New York, besides the open stands. In one corner of the field is the Osborn Club House, the gift of Professor Osborn of the class of 1877. This is the principal centre of the undergraduate athletic life. Here the various athletic clubs and teams have their training tables and all the necessary facilities for bathing and exercising.

Such are the buildings upon the Princeton Campus. They are not erected in closed quadrangles, but spaced separately in a park. While architectural symmetry is not the rule, there are several buildings of striking dignity. However, the various differences all seem to be blended by the lawn and trees, which act as a sort of æsthetic solvent and combine all the Campus in one. The building periods of Princeton are practically only two, the colonial period and the contemporary period represented by Presidents McCosh and Patton. To the former we owe the quiet dignity of Nassau Hall, to the latter, almost a city of buildings which collectively are most impressive and in some cases individually beautiful.

## Organization and Administration.

The academic body of Princeton is composed of four members—the Trustees, the Faculty, the Students and the Alumni. Officially and legally considered, the Trustees constitute the corporation created by the charter and styled in that instrument "The Trustees of the College of New Jersey." They, and they alone, have full powers to carry out the provisions of the charter. Accordingly they hold and administer the property of the College, make whatever laws are necessary or desirable for its government, elect its President and Faculty and confer degrees. The Board of Trustees is self-perpetuating. It consists of twenty-seven members, the Governor of the State being its President exofficio, the President of the College presiding in the absence of the Governor. The larger part of its work is executed by its six standing committees, subject to the approval of the whole Board. These are the Committees on Finance, on Grounds and Buildings, on Library and Apparatus, on the Curriculum, on Morals and Discipline, and on Honorary Degrees.

While the fundamental control thus rests with the Trustees, the most potent agent for executing the policy of the University is found in that body created by the Trustees under the charter and known as the "Faculty." This body consists of the President of the University, the Dean, the professors and assistant professors and other instructors. From the very beginning it has been charged with the conduct of the whole discipline and instruction, for which it is specifically responsible to the Trustees. Its business is prepared in the main by its standing committees, which are as follows:—Committee on the Library; on the Schedule of Studies; on Weekly

Schedules and Examinations; on University Degrees and Fellowships; on Absences; on Special and Delinquent Students; on Discipline; the Sanitary Committee; on Assignment of Rooms; on College Publications; on Music; on Out-Door Sports; on Scholarships and Charitable Funds; on Teachers and Schools and on the Catalogue. The Faculty meets every Wednesday afternoon. Communications from students are usually sent in writing through the Registrar of the College, or else a student may appear in person, if he so desires. The President is ex-officio a member of every committee of the Faculty, and, in some cases, the acting chairman.

The students form the third factor in the University's life. They are admitted to the student status on presenting satisfactory testimonials of character, and on passing the necessary entrance examinations. They are entitled to continue as members of the undergraduate body throughout the four years undergraduate course, so long as they satisfy the academic standard of scholarship and character. On completing the undergraduate course, they receive the Bachelor's degree. Such as remain for graduate study are entitled, on fulfilling the requirements, to attain the higher Master's or Doctor's degrees. The undergraduate students fall into two classes, the Academic and the Scientific, both of them pursuing a four years' course of study.

The Alumni consist of all those who have taken a degree at Princeton. While having no official relationship to the University, they are a powerful auxiliary in its maintenance and development. They are organized in various associations, scattered throughout the country. The oldest is the central Alumni Association of Nassau Hall, which meets every Commencement at Princeton. There are also various local associations.

In the East are to be found the Princeton Club of New York, and the Alumni associations in Philadelphia, Baltimore, Washington, Pittsburgh, Harrisburg and Albany, with the associations of Delaware and New Jersey. In the West there are the associations of Cineinnati, Louisville, Cleveland, Chicago, St. Louis, Omaha, Minnesota and San Francisco. They hold annual meetings, at which the President or some Professor is usually present, and are instrumental in promoting the usefulness of local entrance examinations, and in many other ways. A movement is now on foot towards the organization of a National Alumni Association, which shall combine and direct the energies of the Alumni still more efficiently.

#### Instruction.

In order to become an undergraduate student, ecrtain preliminary qualifications in the way of school preparation are required, and these are tested by entrance examinations. Those who pass the entrance examinations then enter upon the undergraduate course of four years. On completing this, they are qualified to pursue graduate studies. Any account of the course of instruction will, therefore, naturally fall under three heads, the entrance requirements, the undergraduate curriculum and graduate courses.

The entranee requirements are of two kinds, according as the candidate seeks admission to the academic or scientific department. The academic requirements consist exclusively of English, Latin, Greek, Mathematics and either French or German. Princeton is distinctly committed in this way to a classical and mathematical secondary discipline as an indispensable prerequisite for that general liberal culture, which is to be marked with

the degree of Bachelor of Arts. The academic requirements for entrance have been revised during the current year, with the view of making them slightly higher and at the same time more flexible. A distinction is introduced between minimum requirements, expected of all academic applicants, and maximum requirements, which may be offered by those who are sufficiently prepared to do so. The minimum requirements consist of the subjects mentioned above, and are sufficient for admis-They are considered the essential things, and indispensable for progress in the subjects which lie beyond. At the same time it is well known that every bright boy has aptitudes of his own, and should be encouraged to develop any strong taste he may have in study. It is the experience of colleges that few students are equally well prepared in all subjects, and that many come up with marked proficiency in some one. Accordingly, Princeton offers maximum academic requirements in Latin, Greek, Mathematics and Modern Languages. Those who pass any one of these advanced requirements will be admitted to a correspondingly advanced division in the freshman class, and as the arrangement of freshman divisions is made independently in each subject and according to merit, the entering student will, in the future, be assigned in every subject, whether in an advanced or regular course, to that division which most closely covers his individual needs. The opening of advanced divisions in connection with the maximum requirements is consequently designed to facilitate the progress of all who are prepared to do advanced work in any study.

The entrance requirements for the scientific department consist of English, Mathematics, Modern Languages and Physical Geography. These subjects are

exacted from all, whether they are eandidates for the degree of Civil Engineer or Bachelor of Science, but those who seek the degree of Bachelor of Science are also examined in Latin.

The undergraduate curriculum, both academic and scientific, extends through four scholastic years and embraces two kinds of studies, styled required and elective. At the end of the academic course stands the degree of Bachelor of Arts, and at the end of the scientific course, the degrees of Bachelor of Science, Civil Engineer and Electrical Engineer.

The required studies of the academic course embrace the entire schedule of the freshman year, three-fourths of the sophomore year, over one-third of the junior year and a still smaller portion of the senior year. These required studies are regarded as essential in a liberal education, and, therefore, are not left to the student's option. Comprehensively speaking, they consist of instruction in classical, English and continental literature on the side of language; in mathematics, physics, chemistry and biology on the side of science; in history and political economy on the side of what may broadly be styled polities; in logic, psychology and ethics on the side of philosophy; in the Bible and evidences of Christianity on the side of religion. These studies are co-ordinated, so far as practicable, so that those which follow each other do so logically, and those which are pursued simultaneously constitute at any level of the course a coherent curriculum. Care is also taken to see that each series of required courses is completed before the elective courses, to which it leads, are offcred. In this way it is hoped to seeure that intelligence of ehoice in elective studies which has so much to do with a student's wholesome intellectual development.

The elective studies begin in embryo in sophomore year, where only five elective courses are open, Latin, Greek, Mathematics, French and German. these five are to be chosen by each sophomore. The elective courses thus offered arc, as will be noticed, merely extensions of old subjects, with which the student may be supposed to be familiar, if he is familiar with anything, and accordingly his first experiment in choosing electives is easily within the range of what he may be supposed to be able to select from with reasonably sure good sense. Thus by making his first acquaintance with elective studies in this restricted area, the transition, often so dangerous, is made more safe as he approaches the numerous and newer electives of the later years. In the junior year the range of electives is wider, and in the senior year it is limited only by what the University may be able to offer. In general, however, it may be said that, beginning with the very general disciplinary studies of the sophomore elective list, there is a steady progress toward the more highly specialized courses as the maturity of the student increases.

In the scientific department there are several courses which lead to the degree of Bachelor of Science. The first of these is the course in General Science, which is intended to offer instruction in science without specializing in any one department. There are also the course in Chemistry, and the course in Biology and Chemistry. The course in Civil Engineering is designed to prepare its graduates to enter the profession of Civil Engineering, and is strictly technical. The department of Electrical Engineering, very recently established, is partly undergraduate and partly graduate in character. At present it may be entered at the close of the junior

year, but is to be made more strictly a graduate eourse, beginning with 1895. From that time onward, the normal time necessary for obtaining the degree of Electrical Engineer will be six years, four undergraduate and two graduate.

The whole number of courses of study, both required and elective, given in the academic and scientific undergraduate curriculum of Prineeton, is two hundred and eighteen. Of these, one hundred and forty are in the academic, and seventy-eight in the scientific department. Arranged by subjects, the number of eourses offered is as follows: Philosophy, 15; History, 4; Jurisprudence and Political Economy, 7; Archæology and Art, 6; Greek, 14; Latin, 21; Sanskrit, 2; Hebrew, 2; English, including Anglo-Saxon and Gothic, 11; German, 18; French, 15; Italian, 4; Spanish, 2; Mathematics, 24; Astronomy, 4; Physics, 9; Chemistry, 16; Physical Geography, 1; Geology, 5; Biology, 12; Mineralogy, 2; Surveying, 1; Graphics, 8; Mechanies, 6; Engineering Construction, 4; Geodesy, 5.

In addition to the courses open to undergraduates, there are also courses open to resident graduates, under suitable regulations. By pursuing these eourses, and doing the outside work in the way of study and research eonnected with them, those who have obtained the degree of Bachelor or Master of Arts, may pass onward to the corresponding degree of Master, or yet higher degree of Doctor. Some of the eourses offered are solely for graduates, and others are senior eourses open to graduates. The total number of eourses available for graduate study is about fifty.

The number of Fellowships available for graduate students is thirteen. They are established in the following subjects: Mental Science, Social Science,

Archæology, Mathematics, Experimental Science, Biology, History, Classics, Modern Languages, English and Oratory. They are of two kinds, the College Fellowships, which are won by competitive examinations at graduation, and the University Fellowships, held under appointment by the Faculty. The University Fellows are to be selected from graduates of not more than five years' standing of any accredited American College. The graduate courses are further organized in connection with studies leading to the Doctor's degree. degree of Bachelor of Arts leads naturally to that of Master of Arts, and finally to Doctor of Philosophy, and in the same way the degree of Bachelor of Science leads to Master of Science, and finally to Doctor of Science. The degree of Master of Arts is no longer to be given except for work done, and consequently all the upper degrees, both Master's and Doctor's, now stand for distinct scholarly attainments. The essential requirements for the Doctor's degree are that the applicant be possessed of the Bachelor's degree; that he evince sufficient culture by a special preliminary examination to warrant his enrolment as a candidate; that he spend two years exclusively in resident study for the degree; that he present a thesis, showing thorough scholarship and ability to pursue original research; that his thesis, when accepted, be published, and that the candidate stand a satisfactory examination on the subject to which he has devoted his chief study, as well as on two subsidiary subjects cognate to it.

The development of the graduate work is, of course, now one of the chief tasks incumbent upon Princeton. Here is where large endowments can not only be used, but used with most telling effect. Additional professorships of research, as well as of instruction; a sufficient

number of endowed fellowships; sufficient increase in the Library to convert it into a library of research, as well as one of general consultation; and a proportionate increase in all the other required facilities are urgent needs at this present time. It is to be feared that the American public has as yet realized but imperfectly what a University means and of what incalculable good it is capable not only for the promotion of learning but for the general welfare of our country.



